HELICONIUS ERATO AURIVILLIUS, 1882 (INSECTA, LEPIDOPTERA): PROPOSED CONSERVATION UNDER THE PLENARY POWERS, Z.N.(S.)1759

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This case deals with two species of butterflies of the genus *Heliconius* Latreille, 1804, viz. *Papilio vesta* Cramer, 1775 and *Papilio erato* Linnaeus, 1758, the names of which have been confused. For the purpose of the discussion it is convenient to assume that there are two species: Species A (a red, monomorphic form) and Species B (a red form, a blue form, and a green form which is not relevant to this discussion).

2. The nomenclature used for 100 years and with which the

Linnean types agree is set out in:

Scheme 1 Species A = Papilio vesta Cramer, 1775

Species B=(red form) Papilio erato Linnaeus, 1758

=(blue form) Papilio doris Linnaeus, 1771

3. From Linnaeus' description (*Syst. Nat.* 1758, ed. 10, vol. 1, p. 467), *P. erato* could be one of half a dozen species including A and B (red form). Clerck (1764, *Icones* 2 to 40, fig. 5) figured a fresh specimen of Species B (red form) and called it *Papilio erato* (presumably Linnaeus' species). Linnaeus (1764, *Mus. Lud. Ulr.* p. 231) cited Clerck's figure as *P. erato*. Linnaeus (1771, *Mantissa Plant.* Altera, Appendix) named Species B (blue form) *Papilio doris*. Cramer (1775, *Uitl. Kapellen* vol. 2, 33, p. 199 (fig. a)) illustrated Species A under the new name *Papilio vesta*. Linnaeus (in later editions of *Syst. Nat.*) cited Clerck's and Cramer's figures as *P. erato* (i.e. both A and B (red form)).

4. Aurivillius (1882, Kongl. svensk. Vet.-Akad. Handl.) declared that the very full description of *P. erato* in Mus. Lud. Ulr. in 1764, could not be Species B (red form), but must be Species A, and consequently designated Cramer's figure as the type of *P. erato*. This designation

established the arrangement set out in:

Scheme 2: Species A=Heliconius erato Linn. sensu Aurivillius, 1882 (nec. L. 1758) (Synonym *P. vesta* Cramer 1775)

> Species B=(red form) Heliconius doris (L.) form delila Hübner

=(blue form) Heliconius doris (L.) typical form. This arrangement has been followed by all subsequent workers including Stichel, Stichel & Riffarth, Seitz and Neustetter. Starting in 1950 the genus Heliconius has been used extensively for biological research, including behaviour, genetics, neurology, ecology and mimicry. A list of relevant research papers is held in the Commission's Office. In all these papers the nomenclature, following Aurivillius, is as in Scheme 2.

5. To return to the Linnean usage of Scheme 1 would cause the utmost confusion, especially as Species A and Species B (red) are apparently mimics. It is in fact doubtful if those zoologists who lack any particular interest in nomenclature would ever get into the habit of using Scheme 1; even if some of them did not actively rebel, the rest would probably ignore it. The only paper of zoological interest which uses Scheme 1 is Bates' classic of 1862, which is now read for historical interest only.

6. I therefore submit that the most sensible course is to follow Scheme 2, and to conserve the name H. erato sensu Aurivillius, 1882 by designating a specimen of Species A as neotype of P. erato L., 1758. The following specimen is proposed as neotype of H. erato sensu Aurivillius housed in the British Museum (Natural History): 'Berg. en Dal. Surinam. 1898-9. Michls./erato erato Linn./866./20.20. ex coll. Riffarth/Joicey Bequest, Brit. Mus. 1934-120.' This is very probably the specimen photographed in Stichel & Riffarth (1905, Das Tiereich, Lief.

22 Heliconiidae, p. 199).

7. The International Commission on Zoological Nomenclature

is therefore requested:

(1) to use its plenary powers to set aside all designations of type specimen hitherto made for Papilio erato Linn., 1758, and having done so to designate the specimen now held in the British Museum (Natural History) and as detailed in paragraph 6 above, as neotype of that species:

(2) to place the following specific names

(a) erato Linnaeus, 1758 as published in the binomen Papilio erato and as defined by reference to the neotype designated in (1) above, and

(b) doris Linnaeus, 1771, as published in the binomen Papilio doris Linnaeus, 1771 on the Official List of Specific Names in Zoology.